[0037] What is claimed is:

1. An apparatus comprising:

an antenna weighted value generator to provide an antenna weighted value to a received signal by a manipulation of a first value derived from an amplitude of the received signal and a second value derived from a phase of the received signal.

2. The apparatus of claim 1, wherein the antenna weighted value generator comprises:

a first variable amplifier to adjust an amplitude of the received signal; and

a second variable amplifier operably coupled to the first amplifier to adjust the phase of the amplitude adjusted receive signal.

3. The apparatus of claim 2, wherein the second variable amplifier is able to provide a real portion of the phase of the antenna weighted value and an imaginary portion of the phase of the antenna weighted value.

4. The apparatus of claim 3, wherein the second variable amplifier comprises

a first adjustable phase amplifier to adjust the phase of the received signal and to provide the real component of the antenna weighted value; and

a second adjustable phase amplifier to adjust the phase of the received signal and to provide the imaginary portion of the antenna weighted value.

5. An apparatus comprising:

two or more antenna weighted value generators to provide antenna weighted values to two or more signals received at two or more antennas, respectively, wherein at least one of said antenna weighted value generators is able to generate a first antenna weighted value based on a manipulation of a first value derived from an amplitude of the two or more received signals and a second antenna weighted value derived from a phase of the two or more received signals.

6. The apparatus of claim 5, wherein the antenna weighted value generator comprises:

a first variable amplifier to adjust an amplitude of the received signal and to provide an amplitude adjusted signal; and

a second variable amplifier operably coupled to the first variable amplifier to adjust the phase of the amplitude adjusted signal.

7. The apparatus of claim 6, wherein the second variable amplifier is able to provide a real portion of the antenna weighted value and an imaginary portion of the antenna weighted value to the received signal.

8. The apparatus of claim 7, wherein the second variable gain amplifier comprises

a first adjustable phase amplifier to adjust the phase of the amplitude adjusted signal and to provide the real portion of the antenna weighted value to the received signal; and

a second adjustable phase amplifier to adjust the phase of the amplitude adjusted signal and to provide the imaginary portion of the antenna weighted value to the received signal.

9. The apparatus of claim 5, wherein the first and second antenna weighted generators provided first and second antenna weighted received signals and the apparatus further comprising:

a first adder to combine first and second real components of the first and second antenna weighted received signals of the first and second antenna weighted value generators, respectively, and to provide a real component of a radio frequency signal; and

a second adder to combine first and second imaginary components of first and second antenna weighted received signals, respectively, and to provide an imaginary portion of the radio frequency signal.

10. The apparatus of claim 9 comprises:

a radio frequency to an intermediate frequency quadrature downconverter to provide an in-phase portion and a quadrature portion of an intermediate frequency signal.

11. An apparatus comprising:

two or more dipole antennas to receive two or more signals; and

two or more antenna weighted value generators to provide antenna weighted values to the two or more signals received at two or more antennas, respectively, wherein at least one of said antenna weighted value generators is able to generate a first antenna weighted value based on a manipulation of a first value derived from an amplitude of the two or more received signals and a second antenna weighted value derived from a phase of the two or more received signals.

12. The apparatus of claim 11, wherein the antenna weighted value generator comprises:

a first variable amplifier to adjust an amplitude of the received signal and to provide an amplitude adjusted signal; and

a second variable amplifier operably coupled to the first variable amplifier to adjust the phase of the amplitude adjusted signal.

13. The apparatus of claim 12, wherein the second variable amplifier is able to provide a real portion of the antenna weighted value and an imaginary portion of the antenna weighted value to the received signal.

14. The apparatus of claim 13, wherein the second variable gain amplifier comprises

a first adjustable phase amplifier to adjust the phase of the amplitude adjusted signal and to provide the real portion of the antenna weighted value to the received signal; and

a second adjustable phase amplifier to adjust the phase of the amplitude adjusted signal and to provide the imaginary portion of the antenna weighted value to the received signal.

15. The apparatus of claim 11, wherein the first and second antenna weighted generators provided first and second antenna weighted received signals and the apparatus further comprising:

a first adder to combine first and second real components of the first and second antenna weighted received signals of the first and second antenna weighted value generators, respectively, and to provide a real component of a radio frequency signal; and

a second adder to combine first and second imaginary components of first and second antenna weighted received signals, respectively, and to provide an imaginary portion of the radio frequency signal.

16. The apparatus of claim 15, comprises:

a radio frequency to an intermediate frequency quadrature downconverter to provide an in-phase portion and a quadrature portion of an intermediate frequency signal.

17. A communication system comprising:

a first communication device to transmit plurality of signals over plurality of channels;

a second communication device to receive the plurality of signals by plurality of antennas and to combine the plurality of signals by providing antenna weighted values to the signals.

18. The communication system of claim 17, wherein the second communication device comprises:

an antenna receiver comprises plurality of antenna weighted value generators operably coupled to the plurality of antennas wherein, an antenna weighted value generator of the plurality of the antenna weighted value generators is able to provide an antenna weighted value to the plurality signals based on a manipulation of a first value derived from an amplitude of a received signal received by an antenna of the plurality of antennas and a second value derived from a phase of the received signal.

19. The communication system of claim 17, wherein the antenna receiver further comprises:

a first adder to combine real portions of plurality of antenna weighted received signals and to provide a real portion of a radio frequency signal; and

a second adder to combine plurality of imaginary portions of the plurality of antenna weighted received signals and to provide an imaginary portion of the radio frequency signal.

20. The communication system of claim 19, wherein the antenna receiver further comprises:

a radio frequency to an intermediate frequency quadrature downconverter to provide an in-phase portion and a quadrature portion of an intermediate frequency signal.

21. The communication system of claim 20, wherein the antenna receiver further comprises:

an intermediate frequency to a base band frequency downconverter coupled to a radio frequency to an intermediate frequency downconverter to provide a real portion and an imaginary portion of a base band e frequency signal.

22. A method comprising:

weighting plurality of signals by adjusting an amplitude and a phase of the plurality of signals based on a channel estimated information; and

combining the plurality of weighted signals to provide a radio frequency signal.

23. The method of claim 22 further comprising:

transmitting the signals over plurality of channels; and

receiving the signals by plurality of antennas.

24. The method of claim 23, further comprising downconverting the radio frequency signal to an intermediate frequency signal.